

UNITED STATES GOVERNMENT

## Memorandum

PACIFIC SOUTHWEST  
FOREST AND RANGE EXPERIMENT STATION  
P. O. Box 245, Berkeley 1, California

TO : SUPERVISOR, Tahoe N.F.

5200

DATE May 5, 1961

FROM : KEITH ARNOLD, Director, By-

SUBJECT: Forest Insect and Disease Control (Insects)

LAT 39.09704 LON -120.17033

On April 26, Robert E. Stevens and Ken Swain met Hal Turner and Norman Anderson of your staff to consider the fir engraver problem in white fir along the west side of Lake Tahoe. Stevens has recorded his observations, which we will pass along to you.

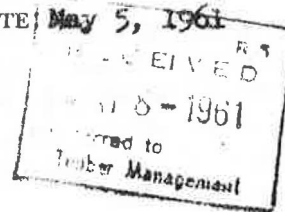
The particular area examined was a new Forest Service campground between Homewood and Tahoe Pines; the situation here is more or less typical of the whole area from Chambers Lodge north to where Highway 89 leaves the lake. The stand is mixed conifer, primarily true fir and Jeffrey pine. The firs are being heavily hit by the fir engraver, Scolytus ventralis Lec. The pines do not appear to be suffering from particularly heavy losses due to insects at this time.

No careful attempt was made to assess the magnitude of the current losses being caused by the fir engraver; however, it did appear that somewhere between 1,000 and 2,000 acres are hard-hit. Infested trees, some upwards of 26" d.b.h., occur both in groups and singly. Some trees are only top-killed, but many are infested throughout the entire stem. Broods are in the larval stage, and most are heavy.

The question is what action to take. Our general comments on control of the fir engraver have been passed along to you on other occasions, and we do not have any new evidence to make us more convinced that direct control can be counted on to halt an outbreak.

Anderson reported what appeared to be an improvement in similar condition in the Wm. Kent Campground (somewhat farther north along the lake) following direct-control operations using lindane spray there last year. He proposes to treat the trees that are infested now with lindane, and then have them hauled out by a woodcutter. This should take care of a large number of beetles and may well result in some reduction in losses.

The question is what will prevent the campground from being immediately reinfested by beetles from the surrounding area? We still have no experimental evidence on the effectiveness of lindane in killing fir engraver adults as they emerge. However, from laboratory work we know that this insecticide is quite toxic to this particular beetle.



Handwritten initials and a signature in the bottom left corner. The initials appear to be 'KS' and 'JH'. A signature, possibly 'H. Arnold', is written over them.

FILE COPY

(June, July, Aug, Sept)

If spraying is done, we advise doing it as close to the time the beetles emerge as possible. Also, because of the uncertainty about the effectiveness of the spray, it might be prudent for the woodcutter to store the logs, if possible, away from the true fir timber. This would result in minimum risk of causing new infestations from beetles emerging from the treated material.

It is difficult to predict the course of this outbreak, whether or not control work is done. History shows us that in general these widespread "epidemic" infestations collapse in short order for reasons that are not well understood. In the meantime, of course, large numbers of trees can be lost. Currently, precipitation is very deficient, and this may well favor continuation of the outbreak.

If control were proved worthwhile, it would be preferable to have the entire infestation area treated as a unit. With the reservations that we have on it, however, the best that we can suggest is that each landowner deal with the problem on his own area.

cc: Supv. Tahoe (lms)

R.O.

State Forester

RES

RCM

CHS

cc: Downing, Averell-8/16/61-ama

*Charles B. Eaton*